

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
14 April 2005 (14.04.2005)

PCT

(10) International Publication Number  
**WO 2005/033328 A3**

(51) International Patent Classification:

C12Q 1/68 (2006.01) C07H 21/02 (2006.01)  
C12P 19/34 (2006.01)

(21) International Application Number:

PCT/US2004/032164

(22) International Filing Date:

30 September 2004 (30.09.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/481,443 30 September 2003 (30.09.2003) US

(71) Applicant (for all designated States except US):  
**PERKINELMER LAS, INC.** [US/US]; 549 Albany  
Street, Boston, MA 02118 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **BUZBY, Philip**  
[US/US]; 31 Harlem Drive, Brockton, MA 02301-5878  
(US).

(74) Agents: **GOLDSTEIN, Avery, N.** et al.; Gifford, Krass,  
Groh, Sprinkle, Anderson & Citkowski, RC, P.O.Box  
7021, Troy, MI 48007-7021 (US).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

(88) Date of publication of the international search report:

6 April 2006

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: COMPOSITIONS AND PROCESSES FOR GENOTYPING SINGLE NUCLEOTIDE POLYMORPHISMS

(57) Abstract: The invention relates to processes, compositions and kits for analysis of nucleic acid variations, especially single nucleotide polymorphisms (SNPs). An inventive process includes a procedure to enzymatically remove inorganic pyrophosphate from a sample prior to and/or during a single base extension reaction. Processes and compositions described herein are especially useful in nucleic acid analysis methods designed to minimize transfer and separation steps.

WO 2005/033328 A3